

**Amendments to the Claims**

The listing of claims below replaces all prior versions and listings of claims in the application.

**Listing of Claims:**

1 - 85 (cancelled)

86. (new) A system that determines a cost of insurance comprising:  
a device that writes and records characteristics related to a level of risk of operating a vehicle through an automotive communication link;

means for a party associated with the vehicle to review the recorded characteristics and review how the recorded characteristics affect a cost of insurance;

means for the party to selectively control whether to transmit the recorded characteristics to an insurer through a publicly accessible distributed network;

means for the party to transmit the recorded characteristics to the insurer through the publicly accessible distributed network;

means for assigning a level of risk to the operation of the vehicle based on the recorded characteristics; and

means for determining a cost of an insurance policy based on the assigned level of risk.

87. (new) The system of claim 86 where the means for assigning the level of risk to the operation of the vehicle based on the recorded characteristics resides on a Web server remote from the means for the party associated with the vehicle to review the recorded characteristics and review how the recorded characteristics affect the cost of insurance.

88. (new) The system of claim 86 where the means for assigning the level of risk to the operation of the vehicle based on the recorded characteristics and the means for the party associated with the vehicle to review the recorded characteristics and review how the recorded characteristics affect a cost of insurance reside on a computer remote from the publicly accessible distributed network and remote from a Web server.

89. (new) The system of claim 86 further comprising software that compares at least one of the recorded characteristics to at least one characteristic of a second party or a plurality of parties.

90. (new) The system of claim 86 further comprising software that compares at least one of the recorded characteristics to an averaged characteristic of a plurality of parties.

91. (new) The system of claim 86 further comprising a wireless interface configured to link the device that writes and records characteristics related to the level of risk of operating the vehicle to the means for the party associated with the vehicle to review the recorded characteristics and review how the recorded characteristics affect the cost of insurance.

92. (new) The system of claim 86 further comprising a graphical user interface in communication with the means for the party associated with the vehicle to review the recorded characteristics and review how the recorded characteristics affect a cost of insurance.

93. (new) The system of claim 86 where the device that writes and records characteristics related to the level of risk of operating the vehicle through the automotive communication link comprises a portable plug-in module that does not lose its content when the portable plug-in module is not connected to an external power source.

94. (new) The system of claim 93 where the portable plug-in module is operative to interface an on board diagnostic port coupled to a vehicle bus that is in communication with a first processor local to the vehicle and is operative to interface a second processor remote from the vehicle.

95. (new) The system of claim 94 where the portable plug-in module comprises a non-volatile storage medium that may only be erased in blocks.

96. (new) The system of claim 86 further comprising an application that translates data received from the device that writes and records characteristics related to the level of risk of operating the vehicle from a first format to a second format and transmits the data to an insurer's Web site that is remote from the application by specifying a protocol to transmit the data and by identifying a server that serves the insurer's Web site.

97. (new) The system of claim 96 where the application comprises software executed by a processor that generates user-centric screens that summarize a user's driving behavior by processing a plurality of types of coded data received through a second wireless communication link, where the software is configured to allow the party to change a portion of the data or change all of the data transmitted to the insurer's Web site.

98. (new) The system of claim 97 where the means for the party associated with the vehicle to review how the recorded characteristics affect a cost of insurance to the user comprises means for reviewing how the recorded characteristics affect a prospective cost of insurance or how the changed data would affect the prospective cost of insurance.

99. (new) The system of claim 86 where the means for determining the cost of the insurance policy based on the assigned level of risk comprises means for determining a prospective cost adjustment for an existing insurance policy or a renewal of an insurance policy based on the assigned level of risk.

100. (new) A method of monitoring and reviewing data collected from a vehicle bus that is used to determine a cost of insurance comprising:

- monitoring a vehicle bus that transfers data among electronic components within a vehicle;

- writing data received from the vehicle bus to a device that retains content when not connected to an external power source at a same rate the data is received or at a predetermined interval;

- executing a first program that is remote from the vehicle that enables a user to read a first portion of the data written to the device;

- executing a second program that enables a user to transmit a second portion of the data written to the device through a publicly accessible network to a server that is remote from the vehicle by specifying a communication protocol to transmit the second portion of data;

- executing a third program that calculates a surcharge to a premium of an insurance policy based on the second portion of data or a discount to the premium of the insurance policy based on the second portion of data; and

executing a fourth program that generates a document summarizing the surcharge to the premium of the insurance policy or the discount to the premium of the insurance policy.

101. (new) The method of claim 100 where writing data comprises logging data in a plug-in module configured to interface a processor coupled to an on board diagnostic port in the vehicle, where the plug-in module is operative to store a number of miles traveled in a predetermined time period.

102. (new) The method of claim 100 where writing data comprises writing vehicle speed data, vehicle acceleration data, vehicle deceleration data, turn signal usage data, seat belt usage data, time of day data, date data, location data, operator identity data, vehicle identity data, tire pressure data, telephone usage data, entertainment status data, revolutions per minute data, trip start data, trip end data, relative speed data, or vehicle mileage data in the device.

103. (new) The method of claim 102 where writing data further comprises writing data that indicates a level of willingness of a party to monitor an aspect of the vehicle operation.

104. (new) The method of claim 102 where writing data further comprises writing data that records a connection event of the device and a disconnection event of the device.

105. (new) The method of claim 100 where the second program comprises software that enables the user to observe a vehicle's position determined by processing two kinds of coded signals received from a source external to the vehicle.

106. (new) The method of claim 100 where the surcharge to the premium of the insurance policy or the discount to the premium of the insurance policy is determined only when requested by a party associated with the vehicle or a party associated with the insurance policy.

107. (new) The method of claim 100 further comprising processing the data received from the vehicle bus and displaying a cost of insurance based on the data written to the device.

108. (new) The method of claim 100 further comprising modifying the data received from the vehicle bus and processing the modified data to determine a cost of insurance based on the modified data when requested by a party associated with the vehicle or a party associated with the insurance policy, where the data comprises vehicle speed data, vehicle acceleration data, vehicle deceleration data, turn signal usage data, seat belt usage data, time of day data, date data, location data, operator identity data, vehicle identity data, tire pressure data, telephone usage data, entertainment status data, revolutions per minute data, trip start data, trip end data, relative speed data, or vehicle mileage data.

109. (new) The method of claim 100 further comprising receiving a continuously transmitted code from a communication link remote from the vehicle bus and remote from the publicly accessible network and writing a portion of the continuously transmitted code in the device.

110. (new) The method of claim 109 further comprising receiving a portion of the data written to the device at an insurer's Web site, transmitting second data based on the received data to a client application that generates a Web document that comprises variable content.

111. (new) The method of claim 100 further comprising receiving software updates to the device through a Web site.

112. (new) A data logging system that tracks the operation of a vehicle, comprising:

- a removable storage device comprising a first memory portion that may be read from and is written to in a vehicle;

- a storage device comprising a second memory portion that may be read from and is written to in the vehicle that retains attributes of data logically associated with each data item stored in the first removable storage device;

- a central processing unit that reads data from an automotive bus that transfers data from vehicle sensors to other automotive components and writes data to the first memory portion; and

- a communication device that links the removable storage device to a network of computers associated with an identifying number on a publicly accessible distributed network and is accessible through software that allows a user to access insurance files related to an existing insurance policy or a renewal of an insurance policy and allows the user to access other software related to the insurance files,

where the first memory portion and the second memory portion retain data when an external power source is not coupled to the first memory portion and the second memory portion, respectively.

113. (new) The data logging system of claim 112 further comprising a circuit that generates a steady stream of pulses that synchronizes the transfer of data from the automotive bus to the first memory portion.

114. (new) The data logging system of claim 113 where the circuit that generates the steady stream of pulses is not integrated into the vehicle.

115. (new) The data logging system of claim 114 where the circuit that generates the steady stream of pulses generates the attributes of data logically associated with each data item stored in the first removable storage device.

116. (new) The data logging system of claim 112 further comprising a navigation tracking system in communication with the central processing unit, the navigation tracking system being programmed to process continuously transmitted coded data used to identify a location of the vehicle.

117. (new) The data logging system of claim 112 where the software is configured to allow a party to change some or all of the data written to the removable storage device and where a second software remote from the vehicle is configured to allow the party to transmit the unchanged data and transmit the changed data to a Web server at the party's discretion.

118. (new) The data logging system of claim 112 further comprising an on board diagnostic port interface that enables the central processing unit to receive data from a vehicle speed sensor, a turn signal sensor, a seat belt sensor, a clock, a positioning sensor, a vehicle mileage sensor, or a processor integrated within a electronic management system within the vehicle.

119. (new) The data logging system of claim 118 where the first memory portion retains data related to driving behavior.

120. (new) The data logging system of claim 119 where the central processing unit is configured to record odometer data in the first memory portion and further stores a corresponding timestamp of a current time the odometer data is stored in the first memory portion in the second memory portion.



121. (new) The data logging system of claim 120 where the software enables the user to receive content from the network of computers comprising a prospective cost of insurance of an existing insurance policy from an insurance Web site based in whole or in part on the data written to the first memory portion.

122. (new) The data logging system of claim 121 further comprising an electronic component in communication with the first memory portion and the second memory portion, the electronic component enables the first memory portion and the second memory portion to communicate with a display device.

123. (new) The data logging system of claim 112 where the central processing unit is operative to identify or derive acceleration data from the automotive bus and record the acceleration data in the first memory portion and further stores a corresponding timestamp of a current time the acceleration data is stored in the second memory portion.

124. (new) The data logging system of claim 123 where the second memory portion is resident to the removable storage device.

125. (new) The data logging system of claim 123 where the central processing unit is operative to scramble an access code to the data written to the first memory portion and where the software enables the user to receive content from the network of computers comprising a retrospective cost of insurance.

126. (new) The data logging system of claim 123 further comprising a display device in communication with a computer and a software application resident to the computer, the software operative to process a copy of a portion of the data written to the first memory portion with data regarding at least one risk factor.

127. (new) The data logging system of claim 124 where the software indicates how the data written to the first memory portion, if provided to an insurer, would affect the prospective cost of insurance.

128. (new) The data logging system of claim 127 where the software comprises a graphical user interface that is operative to transmit a copy of the data written to the first memory portion and the second memory portion to the network of computers only when directed to do so by a user.

129. (new) A system that monitors the operation of a vehicle, comprising:  
a vehicle bus that transfers data from vehicle sensors within a vehicle;  
a first processor in communication with the vehicle bus and operative to track vehicle speed data, position data, and aggressive driving behavior data from the vehicle bus;

a global positioning receiver in communication with the first processor that processes position data, time data, and velocity data;

an on board vehicle diagnostic connector interfaced to the vehicle bus and the first processor; and

a removable data logger interfaced to the on board diagnostic connector and operative to receive vehicle speed data, position data, and aggressive driving behavior data in a memory in the removable data logger,

where the removable data logger is operative to upload vehicle speed data, position data, and aggressive driving behavior data from the memory to a second processor remote from the first processor,

where the second processor is programmed to generate Internet documents.

130. (new) The system of claim 129 where the aggressive driving behavior data comprises data that exceeds a first predetermined threshold or does not exceed a second predetermined threshold.

131. (new) The system of claim 129 where the removable data logger comprises a machine interface operative to communicate with the first processor and the second processor and a universal serial bus interface operative to interface a computer.

132. (new) The system of claim 129 where the removable data logger is operative to store meta data in a second memory of the removable data logger

each time the vehicle speed data, the position data, or aggressive driving behavior data is written to the memory.

133. (new) The system of claim 129 where the removable data logger uploads vehicle speed data and position data to an Internet site.

134. (new) The system of claim 133 where the second processor is programmed to calculate a cost of insurance.

135. (new) A method of monitoring and reviewing data collected from a vehicle that is used to determine a cost of insurance comprising:

developing an operational profile of an insured party comprising characteristics related to a level of risk of operating a vehicle;

monitoring a plurality of devices that monitor, measure, or control the operation of the vehicle;

writing data from a selected plurality of devices within a vehicle to a portable storage device, the data being related to the level of risk of operating the vehicle;

transmitting a portion of the data written to the portable storage device through a publicly accessible distributed network to a server that is remote from the vehicle by specifying a communication protocol to transmit the portion of data and by identifying a destination; and

calculating a surcharge to a premium of an insurance policy based on the portion of data written to the portable device or a discount to the premium to the insurance policy based on the portion of data written to the portable device.

136. (new) The method of claim 135 further comprising transmitting data associated with the surcharge to the premium of the insurance policy or the discount to the premium of the insurance policy to a party associated with the vehicle.

137. (new) The method of claim 136 where developing an operational profile of the insured party further comprises comparing data about the insured party with data from a plurality of other vehicle operators based on a selected characteristic of some of the plurality of other vehicle operators.

138. (new) The method of claim 137 further comprising classifying groups of vehicle operators based on a plurality of characteristics of the operators.

139. (new) The method of claim 138 where the premium for the insurance policy comprises a premium for renewing the insurance policy.

140. (new) The method of claim 138 where the premium for the insurance policy comprises a prospective premium for an existing insurance policy.

141. (new) The method of claim 136 further comprising writing meta data about each of the data written to the portable storage device in the portable storage device and transmitting the meta data written to the portable storage device through the publicly accessible distributed network to the server that is remote from the vehicle.

142. (new) The method of claim 135 further comprising calculating a prospective cost of insurance based on the portion of data written to the portable device.

143. (new) The method of claim 135 further comprising transmitting a portion of the data written to the portable storage device to the publicly accessible distributed network through a wireless network.

144. (new) The method of claim 135 where the operational profile further comprises characteristics ascribed to a driver or characteristics ascribed to the vehicle.

145. (new) The method of claim 135 where the operational profile further comprises characteristics associated with a driver of the vehicle.

146. (new) The method of claim 135 where the portable storage device is operative to interface an on board diagnostic port coupled to a vehicle bus that is coupled to a first processor local to the vehicle and is further operative to interface a second processor remote from the vehicle.

147. (new) A method of monitoring and reviewing data collected from a vehicle that is used to determine a cost of insurance comprising:

collecting vehicle data from a vehicle bus that represents aspects of operating the vehicle;

writing the collected vehicle data to a portable storage device;

transferring the collected vehicle data written to the portable storage device to a processor that is remote from the vehicle; and

displaying the collected vehicle data that represents the aspect of operating the vehicle with cost data that reflects how the collected vehicle data affects a premium of an insurance policy.

148. (new) The method of claim 147 further comprising entering additional vehicle data that reflects a different aspect of operating the vehicle and

displaying how the additional vehicle data affects the premium of the insurance policy.

149. (new) The method of claim 147 where collecting vehicle data comprises reading powertrain sensor data from a vehicle bus that transfers data from electronic components of the vehicle.

150. (new) The method of claim 147 where collecting data further comprises reading sensor data through an on board diagnostic connector of the vehicle.

151. (new) The method of claim 147 further comprising determining a rating factor based on an analysis of the collected vehicle data.

152. (new) The method of claim 147 further comprising analyzing the collected vehicle data and determining a safety score based on the analysis of the collected vehicle data.

153. (new) The method of claim 147 further comprising receiving the collected vehicle data, determining an insurance risk rating, and analyzing the collected vehicle data to determine a cost adjustment to the premium of the insurance policy, where the collected vehicle data comprises mileage data and the cost adjustment is based on a mileage adjustment.

154. (new) The method of claim 148 where entering additional vehicle data further comprises manually entering data or manually modifying data through a graphical user interface.

155. (new) The method of claim 147 where the act of displaying the cost data comprises generating a document that summarizes a surcharge to the premium of the insurance policy or generating a document that summarizes a rebate to the premium of the insurance policy.

156. (new) The method of claim 147 further comprising executing software that is operative to receive the collected vehicle data that represents aspects of operating the vehicle at a Web server; generating a Web page that comprises a risk rating and portions of the collected vehicle data at the Web server; and transmitting the Web page to a computer remote from the Web server and the vehicle by specifying a protocol to transmit the data and by identifying the computer.

157. (new) The method of claim 156 further comprising executing software at the computer remote from the vehicle and the Web server that allows the operator to change data related to the operation of the vehicle; transmitting the changed data to the Web server by specifying a protocol to transmit the changed data and by identifying the Web server; generating a second Web page that comprises updated insurance cost data based on the changed data; and transmitting the second Web page to the computer remote from the Web server and the vehicle by specifying a protocol to transmit the updated insurance cost data and by specifying an address of the computer.

158. (new) The method of claim 157 where the second Web page comprises a second risk rating.



159. (new) A system that monitors data collected from a vehicle bus that is used to determine a cost of insurance comprising:

- a data monitor that monitors a vehicle bus that transfers data among electronic components within a vehicle;

- a portable storage device that receives vehicle data from the vehicle bus to a first memory within the vehicle, the portable storage device retains content when not connected to an external power source;

- a second memory within the portable storage device that receives meta data that is logically linked to the vehicle data written to the portable storage device within the vehicle each time the vehicle data is written to the portable storage device;

- a first processor programmed to link the portable storage device to a network of computers associated with an identifying number on a publicly accessible distributed network and is accessible through software that allows a user to access insurance files related to an existing insurance policy or a renewal of an insurance policy and allows the user to access other software related to the insurance files;

- a database operatively linked to the portable storage device to store the vehicle data and the meta data written to the portable storage device, the database comprising a storage system comprising records; and

- a second processor programmed to generate a rating factor based on the vehicle data and meta data written to the database.

160. (new) The system of claim 159 where the second processor is programmed to calculate a surcharge to a premium of an insurance policy based on the vehicle data and the meta data stored in the database or a discount to the premium of the insurance policy based on the vehicle data and the meta data stored in the database.

161. (new) The system of claim 159 where the rating factor comprises a safety score of operating the vehicle.

162. (new) The system of claim 159 where the rating factor comprises a usage based cost of insurance.

163. (new) The system of claim 159 where the rating factor comprises a usage based discount to a premium of an insurance policy or a usage based surcharge to a premium of the insurance policy.

164. (new) The system of claim 159 where the second processor is further programmed to generate a display in which a vehicle operator may review the vehicle data stored in the database related to the operator's vehicle accelerations, decelerations, seat belt usage, vehicle speed, time of day, date, location, identity, vehicle identity, tire pressure, telephone usage, entertainment status, vehicle mileage, or turn signal usage.

165. (new) The method of claim 164 where the second processor is further programmed to compare a category of the vehicle data to a similar category of data monitored in other vehicles.

166. (new) The system of claim 159 where the second processor and the database reside at a Web site operatively linked to the first processor through the Internet, the Web site being programmed to deliver customized insurance data related to a usage based insurance and an operator of the vehicle.

167. (new) The system of claim 166 where the second processor is programmed to determine a cost of renewing insurance based on the vehicle data and meta data written to the database.

168. (new) The system of claim 166 where the second processor is programmed to determine a prospective cost of insurance based on receiving the vehicle data and meta data written to the portable storage device at a Web site.

169. (new) The system of claim 166 further comprising a third processor in communication with the data monitor, the third processor integrated within an electronic management system within the vehicle.

170. (new) The system of claim 168 further comprising an OBD1 connector, an OBD2 connector, an OBD3 connector, or an SAE J-1962 connector coupled to the data monitor.

171. (new) The system of claim 166 where the second processor is programmed to access the database of vehicle data and meta data and process at least a portion of the vehicle data to generate a cost of insurance.

172. (new) The system of claim 166 where the second processor is programmed to access the database of vehicle data and meta data and process at least a portion of the vehicle data to generate a prospective cost of insurance.

173. (new) The system of claim 172 where the cost of insurance comprises a cost of renewing an existing insurance policy.

174. (new) The system of claim 172 where the vehicle data is generated by a plurality of devices that monitor, measure, and control the operation of the vehicle.

175. (new) The system of claim 159 further comprising a remote computer in communication with the first processor; a first software application executed by the remote computer that allows an operator to enter data related to the operation of the vehicle; and a second software application executed by the remote computer that transmits the data to a Web server at the operator's direction.

176. (new) The system of claim 159 where the second processor is programmed to compare the vehicle data stored in the database with an aggregate of vehicle data retained in a data storage device to determine a cost of insurance based in part on the comparison.

177. (new) A method of providing a cost adjustment for an insurance policy comprising:

- monitoring a vehicle bus that transfers data among electronic components within a vehicle;

- writing mileage data from the vehicle bus to a device that retains content when not connected to an external power source at a predetermined interval or at a same rate the mileage data is received;

- executing a first program that enables a user to transmit the mileage data written to the device through a publicly accessible network to a server that is remote from the vehicle and the device; and

- calculating a cost of insurance based on the mileage data through a second program resident to the server.

178. (new) The method of claim 177 where the cost of insurance is further based on one additional set of data selected from the group consisting of: vehicle speed data, brake data, turn signal data, seat belt usage data, clock data, vehicle user data, and vehicle identification data.

179. (new) The method of claim 178 where the cost of insurance is further based on vehicle acceleration data, vehicle deceleration data, location data, environmental conditions data, relative speed data, or relative distance data.

180. (new) A data logging device that tracks the operation of a vehicle, comprising:

- a removable storage device comprising a first memory portion that may be read from and is written to in a vehicle and a second memory portion that may be read from and is written to in the vehicle, the second memory portion retains attributes of data logically associated with each of the data stored in the first removable storage device;

- a central processing unit that reads data from an automotive bus that transfers data from vehicle sensors to other automotive components, the central processing unit writes data to the first memory portion and the second memory portion that reflect a level of safety; and

- a communication device that links the removable storage device to a network of computers associated with a publicly accessible distributed network, the communication device is accessible through software that allows a user to access insurance files related to an insurance policy and allows the user to access other software related to the insurance files,

where the first memory portion and the second memory portion retain data when an external power source is not coupled to the first memory portion and the second memory portion, respectively.

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